Original

Northumberland County, Virginia

Board of Supervisors
P. O. Box 129 • 72 Monument Place
Heathsville, Virginia 22473

J Howard
RECEIVED
OCT 14 2011
PRO

October 6, 2011

Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060

RE: VPDES Permit Application
Re-issuance of Northumberland High/Middle School WWTP VA0092061

Dear Sir/Madam:

Enclosed are five (5) copies of our VDPES Permit Application for re-issuance of VA 0092061. The submitted application along with the form "Change of Ownership" is being submitted to you for your review.

Thank you for your attention and help through this process and please feel free to contact me for further information you may need.

Sincerely,

Kenneth D. Eades
County Administrator

dvw

Enclosure

Change of Ownership Agreement Form

RE: Change of Ownership - VPDES Permit No. VA 0092061

Name of permitted facility: Northumberland Middle/High School WWTP

Northumberland County

TO: Virginia Department of Environmental Quality
Regional Office Address

We, the undersigned, hereby request a transfer of ownership for the referenced permit.
Anticipated date of transfer: Permit Renewal date

CURRENT OWNER SHOWN ON PERMIT: I (We) hereby agree to the transfer of ownership modification to the referenced VPDES Permit. Northumberland County Public Schools
Clint Stables

Attach verification that all current owner outstanding Annual Fee payments are up to date (YES/NO). If NO see statement under NEW OWNER below.

Current Owner name as listed on the VPDES Permit Cover Page: Northumberland County Public Schools

Signed: David C Stables Date: October 6, 2011

Printed Name: David C. Stables Title: Superintendent

Address: 2172 Northumberland School Bd
Lottsburg, VA 22511

NEW OWNER TO ASSUME PERMIT: I (We) hereby agree to the change of ownership modification to the referenced VPDES Permit, and agree to accept all conditions and responsibilities of the permit.

NEW OWNER agrees to pay all outstanding Annual Fee payments currently due by old owner YES/NO

Transferred ~~permit to be~~ issued to: Northumberland County

Signed: Kenneth D Eades Date: Oct. 6, 2011

Printed Name: Kenneth D. Eades Title: County Administrator

Address: P.O. Box 129
Heathsville, VA 22473

Telephone: (804) 580-7666

AUTHORIZATION TO BILL APPLICANT FOR
A PUBLIC NOTICE

I hereby authorize the Department of Environmental Quality to have the cost of publishing a public notice once a week for two consecutive weeks, seven days apart, in The Richmond Times-Dispatch, charged to:

Agent or Department to be billed: Northumberland County
County Administrator

Agent's telephone number: 804 - 580-76666

Agent's address: P.O. Box 129
Heathsville, VA 22473

Authorizing Agent: [signature]
Signature

VPDES Permit Number VA0092061

VPDES Permit Application Addendum

1. **Entity to whom the permit is to be issued:** Northumberland County
   Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. **Is this facility located within city or town boundaries?** Y / (N)

3. **Provide the tax map parcel number for the land where the discharge is located.**

   25-1-92

4. **For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities?** N/A

5. **What is the design average effluent flow of this facility?** .0105 MGD
   For industrial facilities, provide the max. 30-day average production level, include units: N/A

   In addition to the design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Y / (N)
   If "Yes", please identify the other flow tiers (in MGD) or production levels:

   Please consider the following questions for both the flow tiers and the production levels (if applicable): Do you plan to expand operations during the next five years? Is your facility's design flow considerably greater than your current flow?

6. **Nature of operations generating wastewater:**

   Domestic wastewater generated from a combination middle/high school.

   100 % of flow from domestic connections/sources
   Number of private residences to be served by the treatment works: 0

   ____% of flow from non-domestic connections/sources

7. **Mode of discharge:** ____Continuous _X_ Intermittent _X_ Seasonal
   Describe frequency and duration of intermittent or seasonal discharges:

   6 discharges/day for approx. 250 school days/yr. 85% of total annual flow occurs during the school year (September through June)

8. **Identify the characteristics of the receiving stream at the point just above the facility's discharge point:**
   __ Permanent stream, never dry
   X X Intermittent stream, usually flowing, sometimes dry
   __ Ephemeral stream, wet-weather flow, often dry
   __ Effluent-dependent stream, usually or always dry without effluent flow
   __ Lake or pond at or below the discharge point
   Other:_____

9. **Approval Date(s):**

O & M Manual 2/2009

Sludge/Solids Management Plan Sludge is wasted into Septic Tank Truck and Hauled to Reedville Treatment Plant and applied to Drying Beds and Dryed and hauled to landfill by Northern Neck Refuse Service

Have there been any changes in your operations or procedures since the above approval dates?
Y (N)

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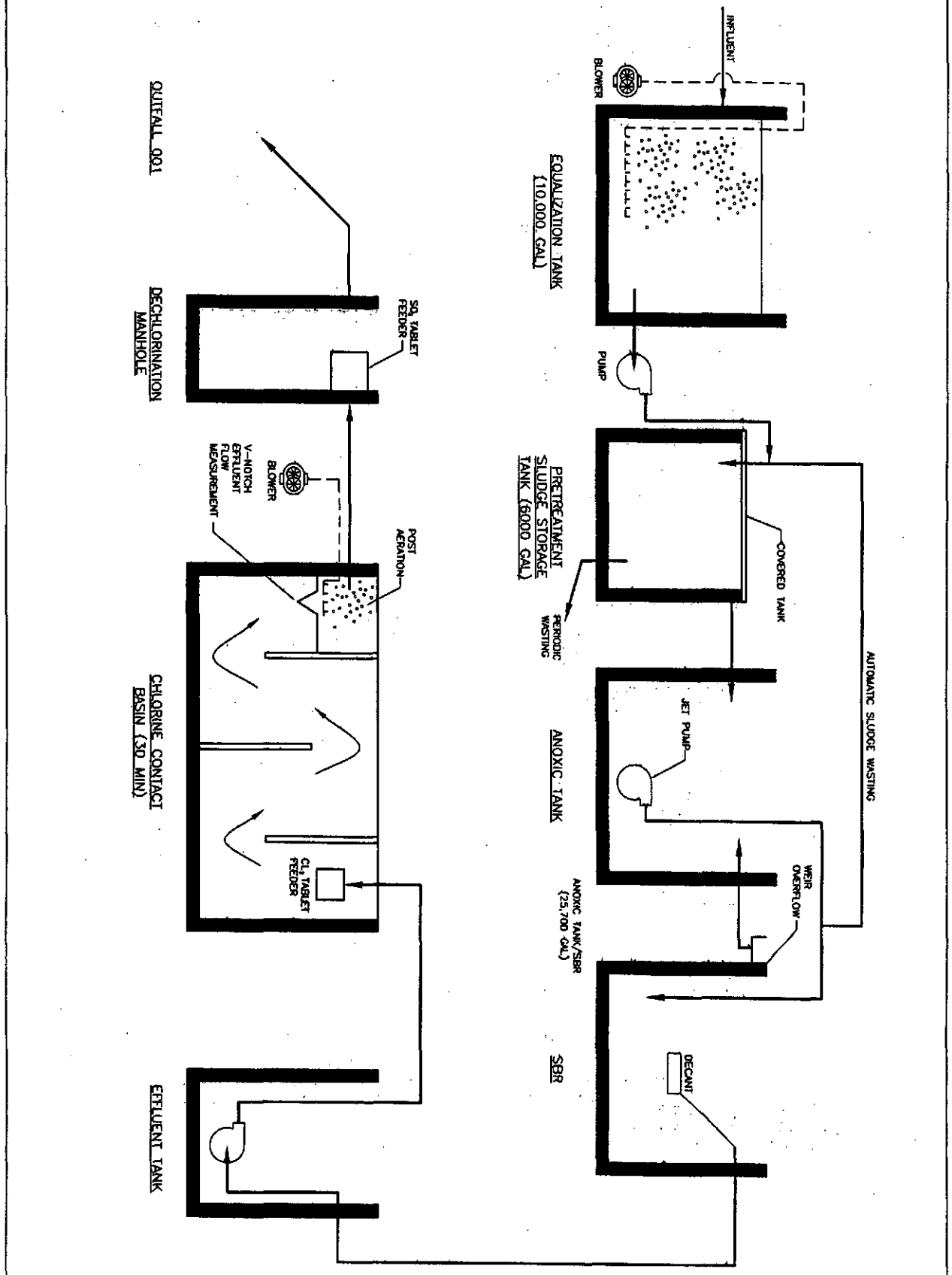


TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

THIS DRAWING PREPARED AT THE CORPORATE OFFICE
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
TEL 804.200.6500 FAX 804.560.1016 www.timmons.com

Site Development | Residential | Infrastructure | Technology

JOB #

NORTHUMBERLAND MIDDLE/HIGH SCHOOL WWTP
NORTHUMBERLAND COUNTY, VIRGINIA
PROCESS FLOW SCHEMATIC

DESIGNED BY	DRAWN BY	CHECKED BY	SCALE	DATE
J. DING	S. SCOTT	J. DING	AS	

REVISION DESCRIPTION	DATE

Northumberland MS-HS
Northumberland County, Virginia
Perennial Stream Assessment Photos

Photo 1: View of Stream Reach #1 looking upstream.

Photo 2: View of Stream Reach #1 looking downstream.

Northumberland MS-HS
Northumberland County, Virginia
Perennial Stream Assessment Photos

Photo 3: View of Stream Reach #2 looking upstream.

Photo 4: View of Stream Reach #2 looking downstream.

Northumberland MS-HS
Northumberland County, Virginia
Perennial Stream Assessment Photos

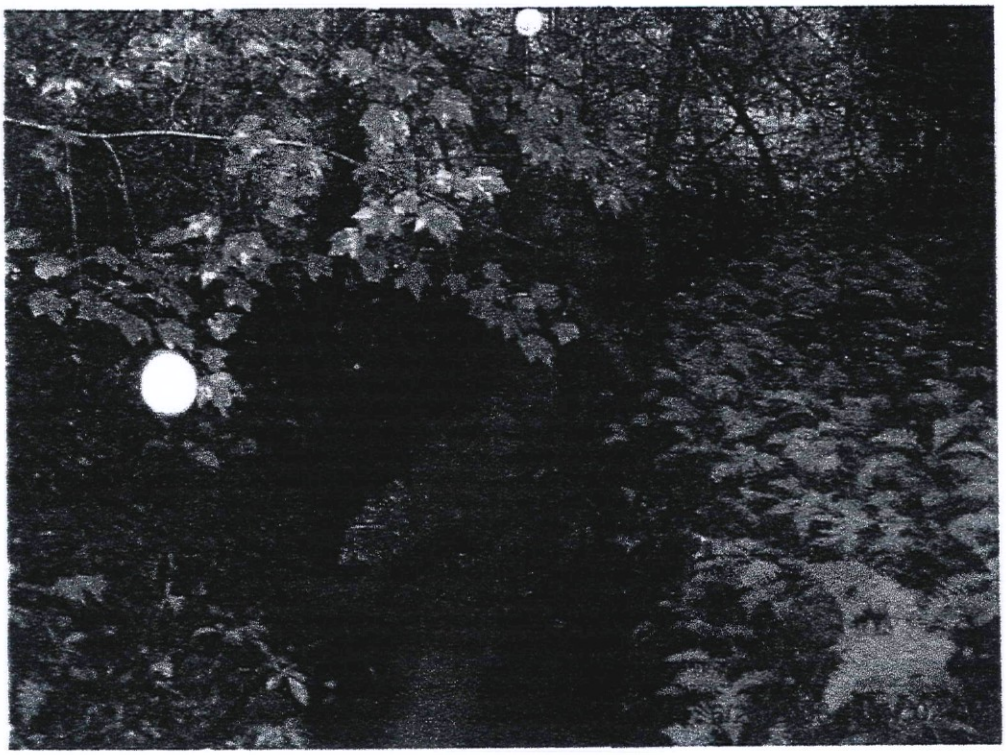


Photo 5: View of Stream Reach #3 looking upstream.

Photo 6: View of Stream Reach #3 looking downstream.

Northumberland MS-HS
Northumberland County, Virginia
Perennial Stream Assessment Photos

Photo 7: View of Stream Reach #4 looking upstream.

Photo 8: View of Stream Reach #4 looking downstream.

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name: Northumberland Middle/High School WWTP

Mailing Address: P.O. Box 129, Heathsville, VA 22473

Contact person: Lee Bowles

Title: Operator/Manager

Telephone number: (804) 453-3600

Facility Address (not P.O. Box): 201 Academic Lane

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name: Northumberland County

Mailing Address: P.O. Box 129, Heathsville, VA 22473

Contact person: Kenneth D. Eades

Title: County Administrator

Telephone number: (804) 580-7666

Is the applicant the owner or operator (or both) of the treatment works?

✔ owner _____ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

_____ facility ✔ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	VA0092061	PSD	
UIC		Other	
RCRA		Other	

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Northumberland Middle/	1,050 students	Separate	Public School System

Total population served 1,050.00

A.5. Indian Country.

a. Is the treatment works located in Indian Country?

_____ Yes ✔ No

b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

_____ Yes ✓ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal. * these figures are pending & will get to you ASAP.

a. Design flow rate .0105 mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate				mgd
c. Maximum daily flow rate				mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

✔ Separate sanitary sewer 100 %

_____ Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

a. Does the treatment works discharge effluent to waters of the U.S.? ✔ Yes _____ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent 1

ii. Discharges of untreated or partially treated effluent 0

iii. Combined sewer overflow points 0

iv. Constructed emergency overflows (prior to the headworks) 0

v. Other _____ n/a

b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? _____ Yes ✔ No

If yes, provide the following for each surface impoundment:

Location: _____

Annual average daily volume discharged to surface impoundment(s) _____ mgd

Is discharge _____ continuous or _____ intermittent?

c. Does the treatment works land-apply treated wastewater? _____ Yes ✔ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? _____ Yes ✔ No

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter name:

Mailing Address:

Contact person:

Title:

Telephone number:

For each treatment works that receives this discharge, provide the following:

Name: Reedville Sanitary

Mailing Address: PO Box 129
Heathsville, VA 22473

Contact person: S. Lee Bowles

Title: Operator | Plant Manager

Telephone number: 804-453-3600

If known, provide the NPDES permit number of the treatment works that receives this discharge. VA0060712

Provide the average daily flow rate from the treatment works into the receiving facility. 6 dry metric tons mgd

e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)? ____ Yes ✓ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed of by this method:

Is disposal through this method ____ continuous or ____ intermittent?

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 **once for each outfall** (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. **If you answered "no" to question A.8.a**, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number: 001

b. Location: Heathsville (City or town, if applicable); 22473 (Zip Code); Northumberland (County); VA (State); 37° 54' 32.77" N (Latitude); 76° 26' 18.29" W (Longitude)

c. Distance from shore (if applicable): N/A ft.

d. Depth below surface (if applicable): 0 ft.

e. Average daily flow rate: 0.0105 mgd

f. Does this outfall have either an intermittent or a periodic discharge? ✔ Yes ____ No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs: approx. 250 schooldays/year, 6 discharges a day

Average duration of each discharge: 18minutes

Average flow per discharge: .0025 mgd

Months in which discharge occurs: 85%-will-Sept-to-June

g. Is outfall equipped with a diffuser? ____ Yes ✔ No

A.10. Description of Receiving Waters.

a. Name of receiving water: un-named tributary to Crabbe Mill Stream

b. Name of watershed (if known): Great Wicomico - Plankatank

United States Soil Conservation Service 14-digit watershed code (if known): unknown

c. Name of State Management/River Basin (if known): unknown

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): HUC 02080102

d. Critical low flow of receiving stream (if applicable):
acute N/A cfs chronic N/A cfs

e. Total hardness of receiving stream at critical low flow (if applicable): N/A mg/l of $CaCO_3$

FACILITY NAME AND PERMIT NUMBER:
Northumberland County Middle/High School WWTP VA0092061

Form Approved 1/14/99
OMB Number 2040-0086

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

_____ Primary ✔ Secondary

_____ Advanced _____ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD_5 removal or Design $CBOD_5$ removal	95.8	%
Design SS removal	96.7	%
Design P removal	95.5	%
Design N removal	94.0	%
Other _____	N/A	%

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorine

If disinfection is by chlorination, is dechlorination used for this outfall? ✔ Yes _____ No

d. Does the treatment plant have post aeration? ✔ Yes _____ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: VA 0092061

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.4	s.u.			
pH (Maximum)	8.6	s.u.			
Flow Rate	.0080	MGD	.0025	MGD	17
Temperature (Winter)	15	C	15	C	17
Temperature (Summer)	23	C	23	C	17

* For pH please report a minimum and a maximum daily value

POLLUTANT		MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
		Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.						* (Pending)	* Will send in when Receive	
BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5	*	MG/L	*	MG/L	*	5210B	mg/L
	CBOD-5	<5	MG/L	<5	MG/L	3	5210B	mg/L
FECAL COLIFORM		*	MPN	*	MPN	*	9221E	MPN
TOTAL SUSPENDED SOLIDS (TSS)		<1	MG/L	<1	MG/L	3	2540D	MG/L

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:
Northumberland County Middle/High School WWTP VA0092061

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

✔ Basic Application Information packet

Supplemental Application Information packet:

_____ Part D (Expanded Effluent Testing Data)

_____ Part E (Toxicity Testing: Biomonitoring Data)

_____ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

_____ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title: Kenneth D. Eades, County Administrator

Signature: Kenneth D Eades

Telephone number: (804) 580-7666

Date signed: 10/7/2011

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

Northumberland Middle/High School WWTP **VPDES Permit: (to be determined)**
PROCESS NARRATIVE

Average Influent/Effluent = 0.0105 MGD
The design hydraulic loading = 0.016 MGD

The design influent loadings are:
- BOD_5 = 300 mg/L
- TSS = 300 mg/L
- TKN = 50 mg/L
- TP = 12 mg/L

The design effluent discharges are:
- BOD_5 = 10 mg/L
- TSS = 10 mg/L
- TKN = 3 mg/L
- TP = 0.3 mg/L

Process Description:
A prefabricated, packaged mechanical WWTP is proposed to provide secondary treatment using a sequencing batch reactor (SBR). The WWTP consist of five separate compartments for flow equalization, pretreatment/sludge storage, anoxic tank, SBR and chlorine contact basin.

Flow Equalization
The flow equalization tank is a 10,000 gallon tank with coarse bubble diffusers to provide for mixing. This is a holding basin to accommodate the incoming wastewater while the SBR is in its fill/react/decant cycle.

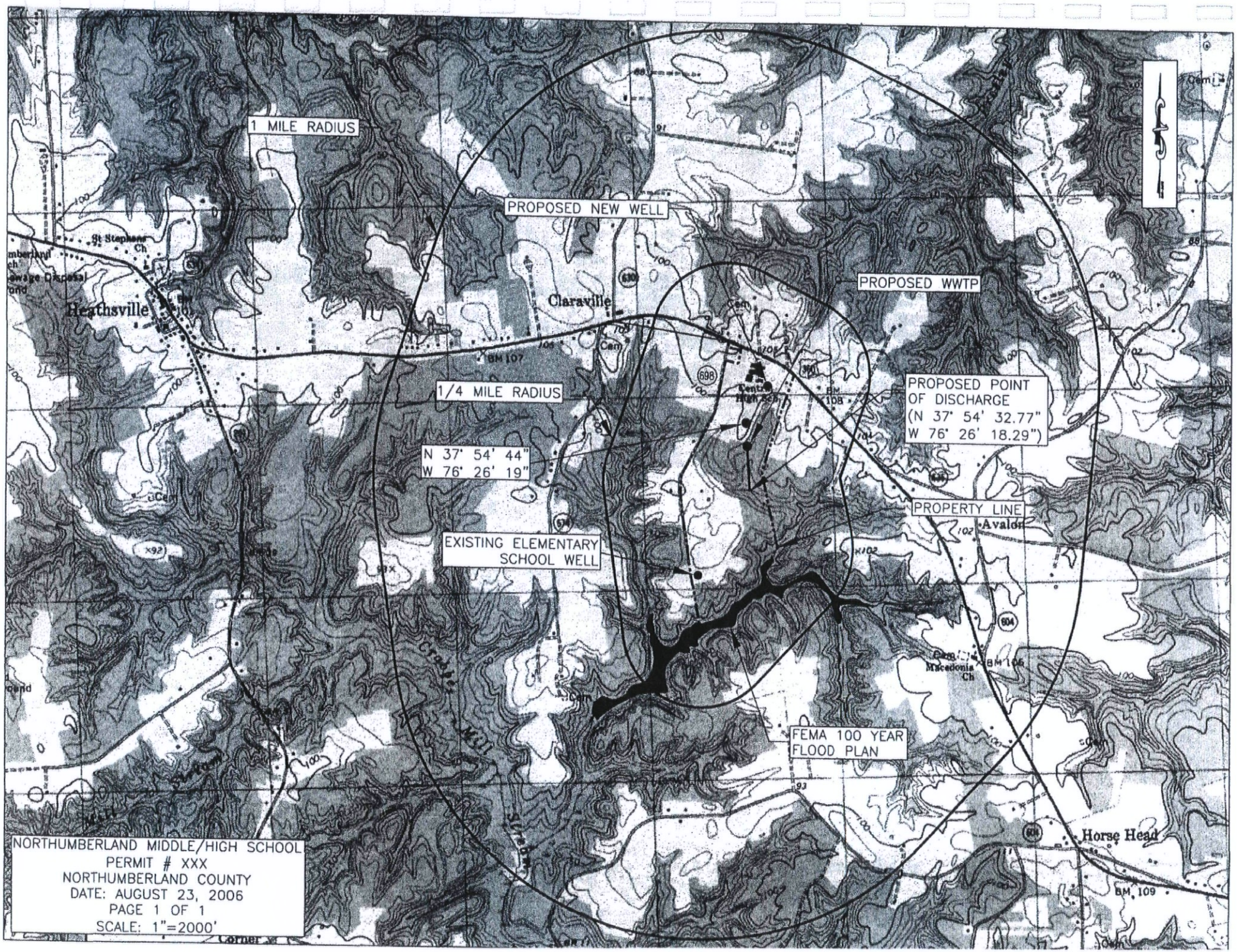
Pretreatment/Sludge Storage
The pretreatment/sludge storage is a 6,000 gallon, covered tank that is maintained in an anaerobic state. Influent passes through this tank prior to the anoxic tank. Sludge from the SBR is transferred here. Sludge will be wasted from this storage tank periodically (2-3 times annually).

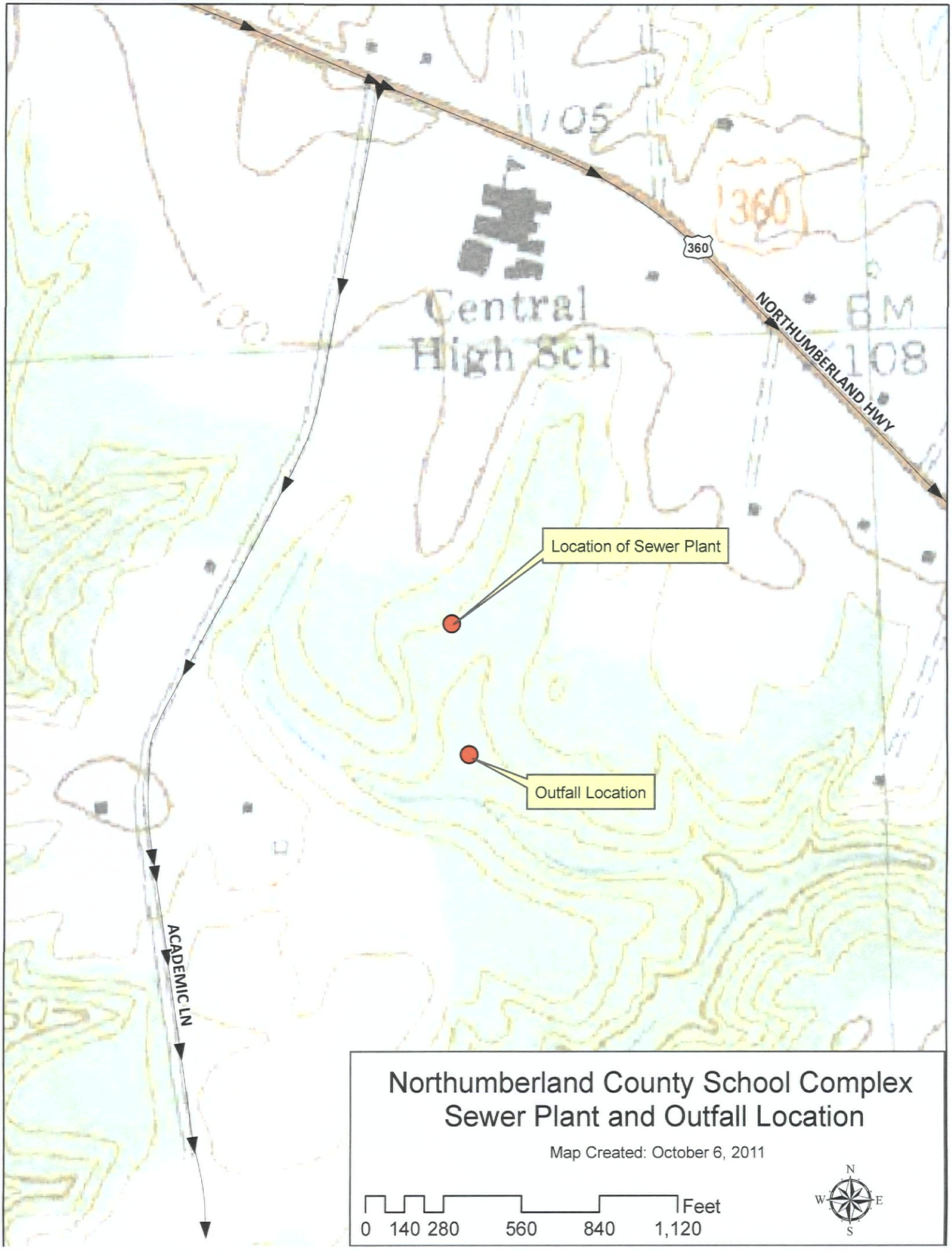
Anoxic Tank
This tank houses the jet pump that fills the SBR. Sludge is wasted back to the pretreatment/sludge storage tank via automatic sludge wasting valves from the jet pump flow.

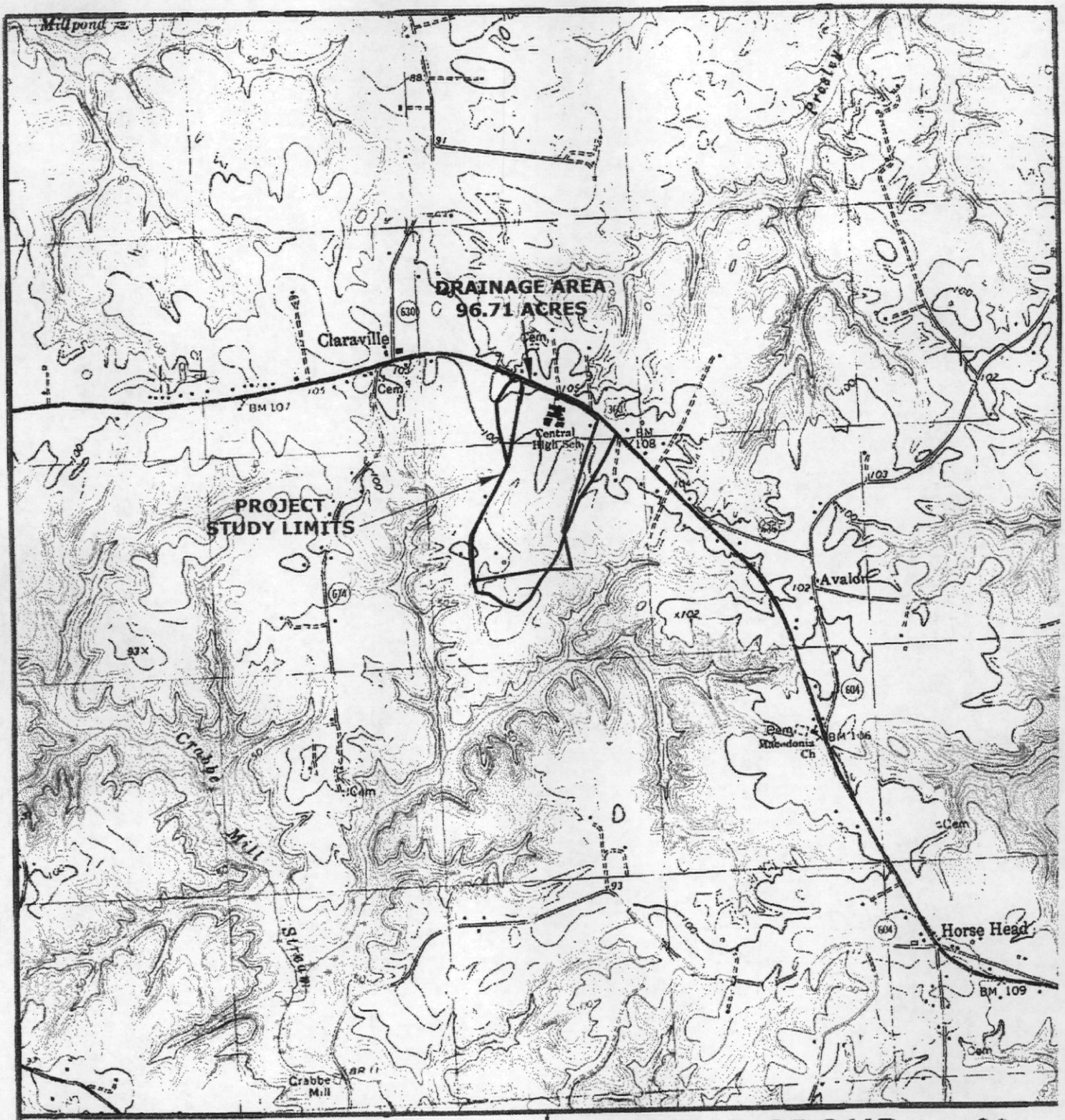
SBR
The SBR receives flow in a batch sequence. The jet pump fills the SBR. The anoxic fill (denitrification) cycle takes 45 minutes. An overflow weir brings the mixed liquor back to the anoxic tank. The aerobic react cycle takes 60 minutes. Settle cycle takes 45 minutes. The effluent is decanted off the tank and released to an effluent tank. The decant cycle takes 30 minutes. The anoxic tank and the SBR volumes combines for 25,700 gallons.

Chlorine Contact Basin
The flow is pumped from the effluent tank through a chlorine tablet feeder and released to the chlorine contact basin that provides 30 minutes of contact time. At the end of the chlorine contact basin, is a V-notch weir with ultrasonic level measurement. Following effluent flow metering, post aeration is provided to minimize the impacts on the receiving water before discharging the effluent to the receiving stream. Additionally, the effluent passes through a SO_2 tablet feeder to remove any residual chlorine prior to release to the discharge manhole.

Outfall
The plant effluent pipeline is a 8-inch gravity line extending 590 LF to the southeast of the WWTP to the outfall.


1 MILE RADIUS
PROPOSED NEW WELL
PROPOSED WWTP
1/4 MILE RADIUS
PROPOSED POINT OF DISCHARGE (N 37° 54' 32.77" W 76° 26' 18.29")
N 37° 54' 44" W 76° 26' 19"
PROPERTY LINE
EXISTING ELEMENTARY SCHOOL WELL
FEMA 100 YEAR FLOOD PLAN
Heathsville
Claraville
Avalon
Horse Head
St Stephens Ch
Macedonia Ch
BM 107
BM 108
BM 106
BM 109
NORTHUMBERLAND MIDDLE/HIGH SCHOOL
PERMIT # XXX
NORTHUMBERLAND COUNTY
DATE: AUGUST 23, 2006
PAGE 1 OF 1
SCALE: 1"=2000'


105
360
360
Central
High Sch
BM
1108
NORTHUMBERLAND HWY
Location of Sewer Plant
Outfall Location
ACADEMIC LN
Northumberland County School Complex
Sewer Plant and Outfall Location
Map Created: October 6, 2011
0 140 280 560 840 1,120
Feet
N
W
E
S



VICINITY MAP OF NORTHUMBERLAND MS-HS

NORTHUMBERLAND COUNTY, VIRGINIA

JOB NUMBER: 23393

DATE: 6/30/06

SITE AREA: 76.22 ACRES

LATITUDE: 37°54'36" N
LONGITUDE: 76°26'22" W

TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

GRAPHIC SCALE

(IN FEET)
1 inch = 2,000 ft.

U.S.G.S. QUADRANGLES: HEATHSVILLE

LOWER POTOMAC WATERSHED (HUC 02070011)
GREAT WICOMICO-PLANKATANK WATERSHED (HUC 02080102)

FACILITY NAME: Northumberland Middle/High School WWTP **VPDES PERMIT NUMBER:** VA0092061

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into four sections. Section A pertains to all applicants. The applicability of Sections B, C and D depends on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Does this facility generate sewage sludge? ✓ Yes _____ No

   Does this facility derive a material from sewage sludge? _____ Yes ✓ No

   If you answered "Yes" to either, complete Section B (Generation Of Sewage Sludge or Preparation Of A Material Derived From Sewage Sludge).

3. Does this facility apply sewage sludge to the land? _____ Yes ✓ No

   Is sewage sludge from this facility applied to the land? _____ Yes ✓ No

   If you answer "No" to all above, skip Section C.

   If you answered "Yes" to either, answer the following three questions:

   a. Does the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions? _____ Yes _____ No

   b. Is sewage sludge from this facility placed in a bag or other container for sale or give-away for application to the land? _____ Yes _____ No

   c. Is sewage sludge from this facility sent to another facility for treatment or blending? _____ Yes _____ No

   If you answered "No" to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

   If you answered "Yes" to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? _____ Yes ✓ No

   If "Yes", complete Section D (Surface Disposal).

FACILITY NAME: Northumberland Middle/High VPDES PERMIT NUMBER: _____

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. **Facility Information.**
   a. Facility name: Northumberland Middle/High School WWTP
   b. Contact person: Kenneth D. Eades
      Title: County
      Phone: (804) 580-7666
   c. Mailing address:
      Street or P.O. Box: P.O. Box 129
      City or Town: Heathsville State: VA Zip: 22473
   d. Facility location:
      Street or Route #: 201 Academic Lane
      County: Northumberland County
      City or Town: Heathsville State: VA Zip: 22473
   e. Is this facility a Class I sludge management facility? ____ Yes ✓ No
   f. Facility design flow rate: 0.0105 mgd
   g. Total population served: 1,050 students
   h. Indicate the type of facility:
      ✓ Publicly owned treatment works (POTW)
      ____ Privately owned treatment works
      ____ Federally owned treatment works
      ____ Blending or treatment operation
      ____ Surface disposal site
      ____ Other (describe): _____

2. **Applicant Information.** If the applicant is different from the above, provide the following:
   a. Applicant name: Northumberland County
   b. Mailing address:
      Street or P.O. Box: P.O. Box 129
      City or Town: Heathsville State: VA Zip: 22473
   c. Contact person: Kenneth D. Eades
      Title: County Administrator
      Phone: (804) 580-7666
   d. Is the applicant the owner or operator (or both) of this facility?
      ____ owner ✓ operator
   e. Should correspondence regarding this permit be directed to the facility or the applicant?
      ____ facility ✓ applicant

3. **Permit Information.**
   a. Facility's VPDES permit number (if applicable): VA0092061
   b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:

Permit Number:	Type of Permit:
N/A	

FACILITY NAME: Northumberland Middle/High VPDES PERMIT NUMBER: VA0091061

4. **Indian Country.** Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? ____ Yes ✓ No If "Yes", describe:

5. **Topographic Map.** Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
   a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
   b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. **Line Drawing.** Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

7. **Contractor Information.** Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? ✓ Yes ____ No

   If "Yes", provide the following for each contractor (attach additional pages if necessary).

   Name: One-Whay Sanitation, LLC

   Mailing address:

   Street or P.O. Box: 1740 Irvington Road

   City or Town: Weems State: VA Zip: 22576

   Phone: (804) 761-2063

   Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

   If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. **Pollutant Concentrations.** Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic	N/A			
Cadmium	N/A			
Chromium	N/A			
Copper	N/A			
Lead	N/A			
Mercury	N/A			
Molybdenum	N/A			
Nickel	N/A			
Selenium	N/A			
Zinc	N/A			

FACILITY NAME: Northumberland Middle/High **VPDES PERMIT NUMBER:** VA0092061

9. **Certification.** Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

   ✓ Section A (General Information)

   ✓ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

   _____ Section C (Land Application of Bulk Sewage Sludge)

   _____ Section D (Surface Disposal)

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

   Name and official title KENNETH D. EADES COUNTY ADMINISTRATOR

   Signature _____ Date Signed 10/7/2011

   Telephone number (804) 580-7666

   Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: Northumberland Middle/High VPDES PERMIT NUMBER: VA0092061

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. **Amount Generated On Site.**
   Total dry metric tons per 365-day period generated at your facility: 4 dry metric tons

2. **Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
   a. Facility name: N/A
   b. Contact Person: _____
      Title: _____
      Phone: (_____) _____
   c. Mailing address:
      Street or P.O. Box: _____
      City or Town: _____ State: _____ Zip: _____
   d. Facility location: _____
      (not P.O. Box) _____
   e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons
   f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. **Treatment Provided at Your Facility.**
   a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
      ____ Class A ____ Class B ✓ Neither or unknown
   b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: SBR
   c. Which vector attraction reduction option is met for the sewage sludge at your facility?
      ____ Option 1 (Minimum 38 percent reduction in volatile solids)
      ____ Option 2 (Anaerobic process, with bench-scale demonstration)
      ____ Option 3 (Aerobic process, with bench-scale demonstration)
      ____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
      ____ Option 5 (Aerobic processes plus raised temperature)
      ____ Option 6 (Raise pH to 12 and retain at 11.5)
      ____ Option 7 (75 percent solids with no unstabilized solids)
      ____ Option 8 (90 percent solids with unstabilized solids)
      ✓ None or unknown
   d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: Anaerobic Digestion
   e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: None

FACILITY NAME: Northumberland Middle/High VPDES PERMIT NUMBER: VA0092061

4. **Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).** N/A

(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
N/A dry metric tons

b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
___ Yes ✓ No

5. **Sale or Give-Away in a Bag or Other Container for Application to the Land.**

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: _____ dry metric tons

b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. **Shipment Off Site for Treatment or Blending.**

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

a. Receiving facility name: Reedville Sanitary District

b. Facility contact: S. Lee Bowles
Title: Operator/Plant Manager
Phone: (804) 453-3600

c. Mailing address:
Street or P.O. Box: P.O. Box 129
City or Town: Heathsville State: VA Zip: 22473

d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:
6 dry metric tons

e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number:	Type of Permit:
VA0060712	DMR Wastewater

f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility?
___ Yes ✓ No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
___ Class A ___ Class B ✓ Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: Dried in Drying bed then Removed

g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? ___ Yes ✓ No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility?
✓ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11.5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

_____ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: _____

h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
_____ Yes ___✓___ No

If "Yes", describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

i. If you answered "Yes" to f, g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

j Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? _____ Yes ___✓___ No

If "Yes", provide a copy of all labels or notices that accompany the product being sold or given away.

k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ___✓___ Yes _____ No. If "No", provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.

Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported.

Right on 360 (North'd Hwy) onto Fleeton Road, turn left on Menhaden Rd, plant on Right., As needed. anytime from 8-4pm Mon-Fri.

7. Land Application of Bulk Sewage Sludge.

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6. Complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites:

_____ dry metric tons

b. Do you identify all land application sites in Section C of this application? _____ Yes _____ No

If "No", submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

c. Are any land application sites located in States other than Virginia? _____ Yes _____ No

If "Yes", describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).